



PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/823,441
	Filing Date	April 13, 2004
	First Named Inventor	Robert Urman
	Art Unit	3661
	Examiner Name	Not Yet Assigned
Total Number of Pages in This Submission	Attorney Docket Number	4276-050925

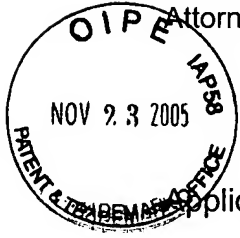
ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment / Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input checked="" type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Remarks	
<input type="checkbox"/> Response to Missing Parts Under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	The Webb Law Firm		
Signature			
Printed Name	Richard L. Byrne		
Date	November 21, 2005	Reg. No.	28,498

CERTIFICATE OF TRANSMISSION / MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:			
Signature			
Typed or printed name	Linda L. Marlowe	Date	November 21, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/823,441 Confirmation No. 4847  
Applicant : Robert Urman et al.  
Filed : April 13, 2004  
Title : ATTITUDE DETECTION METHOD AND APPARATUS FOR  
INITIAL MOTION CONTROL  
Group Art Unit : 3661  
Examiner : Not Yet Assigned  
Customer No. : 28289

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

POWER OF ATTORNEY BY ASSIGNEE  
OF ENTIRE INTEREST (REVOCATION OF PRIOR POWERS)

Sir:

As assignee of record of the entire interest of the above-identified patent application, all powers of attorney previously given are hereby revoked and I hereby appoint the practitioners associated with **Customer Number 28289** to transact all business in the United States Patent and Trademark Office connected therewith.

Customer Number 28289 is the Customer Number for the law firm of The Webb Law Firm whose address is 700 Koppers Building, 436 Seventh Avenue, Pittsburgh, Pennsylvania 15219-1845, Telephone No. 412-471-8815.


**All correspondence and telephone calls should be addressed to Customer Number 28289.**

Ownership is established by an Assignment from the inventors of the above-identified patent application to Westinghouse Air Brake Technologies Corporation, which was recorded in the United States Patent and Trademark Office on April 13, 2004, at Reel 015205/Frame 0015.

Attached to this Power is a Certificate Under 37 C.F.R. 3.73(b).

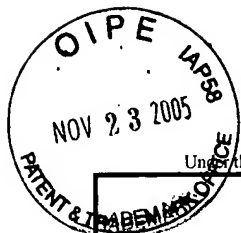
I, David M. Seitz, whose signature appears below, aver that as Assistant Secretary of Westinghouse Air Brake Technologies Corporation, I am empowered to sign this statement on behalf of the Assignee.

WESTINGHOUSE AIR BRAKE TECHNOLOGIES  
CORPORATION

By:   
David M. Seitz  
Assistant Secretary

Date: Oct 31, 2005

Assignee of Entire Interest

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Robert Urman et al.Application No.: 10/823,441 Filed: April 13, 2004Entitled: Attitude Detection Method and Apparatus for Initial Motion ControlWestinghouse Air Brake Technologies Corporation, a Delaware corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title, and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 015205, Frame 0015, or for which a copy thereof is attached.

**OR**

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.☐ Additional documents in the chain of title are listed on a supplemental sheet.☒ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Oct 31, 2005  
Date724 375 412 825 1142  
Telephone numberDavid M. Seitz

Typed or printed name

David M Seitz  
SignatureAssistant Secretary

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



OCT 06 2004

**UNITED STATES PATENT AND TRADEMARK OFFICE**

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

OCTOBER 01, 2004

PTAS



\*102723282A\*

JAMES RAY & ASSOCIATES  
JAMES O. RAY, JR.  
2640 PITCAIRN ROAD  
MONROEVILLE, PA 15146

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/13/2004

REEL/FRAME: 015205/0015

NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

URMAN, ROBERT

DOC DATE: 04/07/2004

ASSIGNOR:

CITTA, JAMES W.

DOC DATE: 04/07/2004

ASSIGNOR:

RODDY, WARREN D.

DOC DATE: 04/07/2004

ASSIGNEE:

WESTINGHOUSE AIR BRAKE  
TECHNOLOGIES CORPORATION  
1001 AIR BRAKE AVENUE  
WILMERDING, PENNSYLVANIA 15148-0001

.015205/0015 PAGE 2

SERIAL NUMBER: 10823441

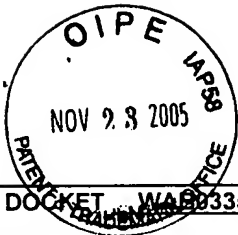
FILING DATE: 04/13/2004

PATENT NUMBER:

ISSUE DATE:

TITLE: ATTITUDE DETECTION METHOD AND APPARATUS FOR INITIAL MOTION CONTROL

RNICOL, SUPERVISOR  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



04-19-2004

ATTORNEY DOCKET NUMBER 10823354

FORM PTO-1595

(Rev. 6-93)

OMB No. 0651-0011 (exp. 4/94)

RECO.

102723282  
PATENTS ONLYU.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

ROBERT URMAN  
JAMES W. CITTA  
WARREN D. RODDYAdditional name(s) & address(es) attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies)

Name: WESTINGHOUSE AIR BRAKE  
TECHNOLOGIES CORPORATION

Internal Address:

Street Address: 1001 AIR BRAKE AVENUECity: WILMERDING State: PA ZIP: 15148-0001Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ OtherExecution Date: April 07, 2004

4. Application number(s) or patent number(s)

10823441

If this document is being filed together with a new application, the execution date of the application is: April 07, 2004

A. Patent Application No.(s):

B. Patent No.(s):

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed.

Name of Agent: James O. Ray, Jr.Name: JAMES RAY & ASSOCIATES

Internal Address:

Street Address: 2640 PITCAIRN ROADCity: MONROEVILLE State: PA ZIP: 151466. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41) \$ 40.00☐ Enclosed☒ Payment by credit card. Form PTO-2038 is attached

8. Deposit account number:

(Attach duplicate copy of this page if paying by deposit account)

10/15/2004 NREIETE1 00000075 10823441

DO NOT USE THIS SPACE

9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

James O. Ray, Jr.  
NAME OF PERSON SIGNING

SIGNATURE

April 13, 2004  
DATETotal number of pages including cover sheet, attachments, and document: 2Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

## U.S. ASSIGNMENT

IN CONSIDERATION of the sum of One Dollar (\$1.00), and of other good and valuable consideration paid to the undersigned inventor(s) ROBERT URMAN, JAMES W. CITTA WARREN RODDY (hereinafter ASSIGNORS) by

### WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION

(hereinafter ASSIGNEE), the receipt of which is hereby acknowledged, the undersigned hereby sells, assigns and transfers to ASSIGNEE the entire and exclusive right, title and interest to the invention entitled:


#### ATTITUDE DETECTION METHOD AND APPARATUS FOR INITIAL MOTION CONTROL

for which application for Letters Patent of the United States was executed on even date herewith, and all Letters Patent of the United States and corresponding Foreign patents to be obtained therefor on said application or any continuation, division, renewal, substitute, reissue or reexamination thereof for the full term or terms for which the same may be granted.

THE ASSIGNORS agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, reissue or reexamination applications thereof and also to execute separate assignments in connection with such applications as the ASSIGNEE may deem necessary or expedient.

THE ASSIGNORS agree(s) to execute all papers necessary in connection with any interference or litigation which may be declared concerning this application or any continuation, division, reissue or reexamination thereof or Letters Patent or reissue patent issued thereof and to cooperate with the ASSIGNEE in every way possible in obtaining and producing evidence and proceeding with such interference or litigation.

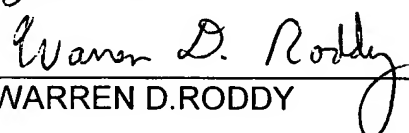
IN WITNESS WHEREOF, the undersigned inventor(s) has (have) affixed his/her/their signature(s).

  
\_\_\_\_\_  
ROBERT URMAN

DATE 4/7/04

  
\_\_\_\_\_  
JAMES W. CITTA

DATE 4/7/04

  
\_\_\_\_\_  
WARREN D. RODDY

DATE 4/7/04